Department of Land Records and Agriculture, Bengal.

NOTE ON THE RESULTS OF BUXAR WHEAT CULTIVATION IN BENGAL

FROM

1886-87 to 1893-94.

CALCUTTA:

PRINTED AT THE BENGAL SECRETARIAT PRESS.

1894.

BENGAL SECRETARIAT LIBRARY

DEPARTMENT OF LAND RECORDS AND AGRICULTURE, BENGAL.

Note on the results of Buxar wheat cultivatian in Bengal from 1886-87 *to* 1893-94.

1. I beg to submit, for Director's consideration and orders, the following papers, in which I have analysed the results of experiments in Buxar wheat in each district in Bengal since 1886-87 :—

(1) Summary of results of experiments in each district in Bengal, from 1886-87 to 1893-94.

(2) Statement showing localities where the cultivation succeeded or gave encouraging results.

(3) Statement showing localities where the cultivation failed owing to unfavourable weather, &c.

(4) Statement showing localities to which Buxar wheat was reported to be unsuitable.

(5) Statement showing localities where the cultivation failed *for reasons not stated.*

Besides, a statement in the usual form, showing the results of Buxar wheat cultivation in 1893-94, is also submitted. I have carefully studied the results of the very numerous experiments that have been made since 1886-87 in various parts of Bengal, as far as the reports which were, as a rule, very meagre enabled me to do so. I note below the lessons which they afford.

2. Out of the total number of experiments reported, about 30 per cent. would appear to have succeeded or given encouraging results, an equal number failed owing, it is reported, to untoward weather, neglect in cultivation, or causes unconnected with the suitability of Buxar wheat to the climate and soil of the localities; in about 17 per cent. of experiments a definite opinion was expressed by reporters to the effect that the variety was unsuited to the soil and climate of their respective localities; and in the remaining cases the experiments failed, but the reasons for the failure were not reported. It would be hardly correct to place implicit faith in the accuracy of the views and opinions expressed by the reporters.

3. A cursory perusal of the last four statements submitted herewith will bring to light many facts which are obviously inconsistent with one another. For instance, in several cases

it will be found that the cultivation of Buxar wheat succeeded in some years and failed in others in the same district, or even in the same locality, and while the successful experimenters reported favourably on the variety, those who were disappointed naturally pronounced an opposite verdict. In such cases, one cannot help thinking that while in the case of the successful experiments the crop was grown under circumstances of soil and cultivation favourable to its growth, these were perhaps denied to it in the experiments which failed. Indeed, looking to the indiscriminate manner in which the experiments have been made, in many cases without any regard to the nature of the soils chosen for the cultivation, the great proportion of failures and the discrepant nature of the reports cannot be wondered at.

4. It will appear on reference to the annual statements of results of Buxar wheat cultivation that in many experiments which were reported to have failed on account, it was believed, of the unsuitability of the wheat to local climate and soil, the produce was pronounced by experts to be of good quality. The latest instance is the experiment made last year by several tenants in the Siliguri sub-division. In commenting on the poor results of the experiments as regards outturn, the Sub-divisional Officer believed the soil and climate of the *terai* to be unsuited for wheat cultivation. The sample of locally grown Buxar wheat sent by him was, however, adjudged by the Agri-Horticultural Society to be equal to "Buxar extra No. 1," and appraised at a higher value than any other sample received from the experimental crop of that year (1893-94). Now it would seem to be hardly correct to say that a soil and a climate which enable a crop to ripen its seeds to perfection are not suited to its cultivation. In such cases we should, I think, look for the cause of poor outturn to circumstances other than unfitness of soil or climate.

5. Many experimenters have complained that Buxar wheat, although showing strong and vigorous growth in the beginning, eventually failed to fulfil its early promise. The latest instances of such failures were the experiments made by Babu Nafar Chandra Pal Choudhury of Mahespur in the Bangaon sub-division of Jessore, and the experiments reported by the Sub-divisional Officer of Bettiah, Champaran. I am not able to trace the cause of such failures, as the reports contain little information regarding the circumstances in which the crop was grown; but I believe that the cause lies in the dryness of the soils in the later stages of the growth of the crop, and their consequent inability to maintain it in

vigor, or in their deficiency in certain chemical constituents. I would respectfully suggest that Dr. Leather's opinion be obtained on the subject, and the original reports on the experiments in Buxar wheat, or the extracts now prepared by me, be laid before him. It may also help his decision to be furnished with samples of the usual kinds of soils in which Buxar wheat is grown in its native country (Buxar and Sasaram sub-divisions), and of those soils on which the experiments are reported to have failed in the manner indicated above.

6. There is ample evidence in the reports of the experiments to show that Buxar wheat is perhaps a more delicate plant than the country varieties of wheat; that it fell a prey to rust, while country wheat entirely escaped, is a fact reported by several experimenters. It also appears to require more irrigation and probably also more manuring. In this belief we addressed a Circular (No. 14Agri., dated 26th November 1889,) to experimenters in 1889, but our instructions do not appear to have been followed in any particular instance.

7. An interesting fact has been brought out by experiments in the continuous cultivation of Buxar wheat in two localities, namely, in some villages belonging to the estate of minor Bhagawat Narain Singh of Patna, and in the Dohazari Ward's estate in Chittagong. It was found that Buxar wheat grown from home saved seed gradually acquires a reddish colour, and thus approaches in character the red varieties of wheat grown in those parts. This fact is of interest from both a scientific and a practical point of view, and some years ago it formed the subject of an enquiry in the North-Western Provinces and Bombay. The experience gained in those provinces also tended to show the gradual change in colour (and also in consistency) in soft white wheat by continuous cultivation in a stiff clay soil.

8. As far as I am able to gather from the reports, there are only three places on record where the cultivation of Buxar wheat may be said to have established itself on a more or less permanent footing. In 1892 the Sub divisional Officer of Jangipur, in the Murshidabad district, reported that he had observed Buxar wheat being grown on about 15 bighas of land in his sub-divison; recently Babu Pulin Behari Singh of Ukra, in the Raniganj sub-division of the Burdwan district, reported that 200 bighas in his estate were cultivated with this variety of wheat, and from the reports received in 1891 from Rai Kailas Chandra Das Bahadur, General Manager of Wards' estates, Chittagong, it appeared that

Buxar wheat was becoming popular in the Dohazari estate. Considering the very large number of localities in which Buxer wheat has been tried since 1886-87, its adoption in only three localities (in two of which it is even doubtful whether the cultivation is still carried on) must be considered to be a poor result. The cultivation of Buxar wheat may perhaps have taken root in some other places where it was tried, but as we have never followed the history of its cultivation after the year of actual experiment, there is no information available on this point. I would humbly suggest that a circular might be addressed to the experimenters or reporting officers named in statement I (Localities in which Buxar wheat succeeded or gave encouraging results), asking them to make enquiries in the localities where the experiments were made, whether the cultivators grew any wheat last year from seed obtained from the original Buxar seed wheat distributed for experiment.

9. With regard to our action in future, I do not feel justified, after a study of the results in the past, to recommend any general distribution of Buxar seed wheat. The wheat crop in the Buxar sub-division almost completely failed last year owing to attack by rust, and consequently any seed-distribution this year is out of the question. In future years, however, we may obtain seed for persons desirous of trying the cultivation of Buxar wheat, but we need not issue any circulars inviting application for seed wheat. The abstract reports of the experiments hitherto carried on may be circulated to official and non-official experimenters, and to all District and Sub-divisional Officers for information, and if, after perusal of these, any of them desire to try Buxar wheat, there can be no special objection in my humble opinion to supplying them with seed wheat.

B. C. Basu,

The 1st August 1894. *Assistant Director.*

Summary of results of experiments in the cultivation of Buxar wheat in each district in Bengal from 1886-87 *to* 1893-94.

BURDWAN.

IN 1887-88 experiments were made in the Kalna, Katwa, and Raniganj subdivisions, but in every case the sowing was made late in the season. The result obtained in Kalna was favourable, an outturn of 5 maunds per bigha having been obtained in spite of the late sowing. Owing probably to this cause, the grain became smaller than the seed and shrivelled, although it was valued by the Seed and Trades Association at 2 to 3 annas more per maund than local wheat. In Katwa the result was slightly less favourable in respect of outturn than in Kalna, but the samples of Buxar wheat from Katwa were considered by the Association to be excellent, and equal to Buxar No. 1 Club. In Raniganj the outturn was very poor, owing, it is said, to want of rain, although the quality was pronounced to be excellent.

In 1888-89 experiments were made in several places in the Katwa subdivision. In spite of the long-continued drought of that year the results were encouraging; most of the samples of Buxar wheat from Katwa were too small for valuation, but one grown by the Subdivisional Officer was pronounced to be of fine quality and received the highest valuation (Rs. 3-1 per maund).

In 1889-90 experiments were made in Katwa and Raniganj, and also in the Burdwan Experimental Farm. Owing to heavy rain in the middle of November, the outturn was poor everywhere, and the quality of grain was not, except in one case, quite as good as it had been in the previous year.

In 1890-91 Buxar wheat was experimentally grown again in Katwa, Raniganj, and the Burdwan Farm. The season proved highly unfavourable on account of the heavy rain in February and March of 1891, which almost entirely destroyed the crop in the Katwa subdivision, and did similar injury in the other places. Most of the samples of Buxar wheat from the district were considered to be of good quality. Kumar Dakhineswar Malia of Searsole, who had made experiments for three years, was of opinion that the western parts of the Burdwan district were suited for the cultivation of Buxar wheat.

In 1891-92 Buxar wheat was grown on a large scale in the Ukhra estate in Raniganj, but both the rate of outturn and quality of grain were poor, owing, it is said, to want of irrigation and inexperience of the cultivators.

In 1893-94 Babu Pulin Behari Singh of Ukhra reported that Buxar wheat was grown on 200 bighas of land in his estate, when it seems to have been naturalised. An experiment made by the zamindari manager of the New Birbhum Coal Company is reported to have failed.

Birbhum.

The cultivation of Buxar wheat appears to have been tried in this district only in one season (1887-88). It gave one-third less outturn than the average of country wheat, owing it is believed, to late sowing and want of irrigation. The quality of the sample received from the district retained all the characteristics of the seed, with the exception of a slight loss of colour.

Bankura.

The cultivation of Buxar wheat appears to have been tried only in one place in the season 1890-91, namely, by Kumar Dakhineswar Malia of Searsole in one of his own villages. The quality of the grain was fairly good, but the outturn was very poor, owing, as is reported, to injury by locusts.

Hooghly.

Buxar wheat has been experimentally grown in the Sibpur Government Farm since 1887-88. The produce of that year was of inferior quality. In the following year the experiment was very successful. Not only was the surplus of Buxar wheat grown on the Farm highly valued (from Rs. 2-15 to Rs. 3-0-6 per maund), but the outturn was fairly good, varying from 3 maunds 14 seers to 6 maunds 13 seers per bigha. The quality of wheat grown in 1889-90 in the farm was, however, again considered to be of inferior quality. In the next season, 1890-91, the quality was much improved, and "declared to be much superior to the type of ordinary Bengal wheat."

Again in 1892-93, the Buxar wheat grown in the farm was judged to be of "English quality," and appraised at Rs. 3-1-6 per maund against Rs. 3-3 per maund for the best Buxar quality.

Some experiments were also made in 1890-91 in one village in the Hooghly district (Gopaltola), but both the outturn and quality were very poor, owing, it is said, to heavy rain and floods in March 1891. An experiment made at Belculi (Serampore) in 1893-94 gave a fair outturn.

Midnapore.

In 1888-89 Buxar wheat was grown experimentally in Malighati, Nagerbasan, Turka, and Belluria estates. The samples for Belluria and Malighati were pronounced to be of nice quality. Information as to outturn is not available. In 1889-90 it was tried also in most of the above places, but totally failed owing to abnormally heavy rain in November shortly after the sowing. In the next season (1890-91) it was tried again in Malighati, Nayagram, Basudebpur, and Moheshpur, but the samples of Buxar wheat received from these places were of inferior quality, except samples from Malighati, which were valued at Rs. 3-2 to Rs. 3-2-6 per maund.

In 1891-92 an experiment was made by the Manager of the Moheshpur estate; the outturn was exceedingly poor, but quality good. The Manager considered the climate and soil of the estate unsuited for wheat. In that year Buxar wheat was also grown at Basudebpur, a fairly good outturn was obtained, and the quality of the wheat was also good. The crop appears to have been well manured and irrigated.

In 1892-93 Babu Kali Prasanna Gajendra Mahapatra of Sabra grew Buxar wheat; the crop was sown late, and therefore gave poor outturn. The quality of the produce was fair, though not equal to Buxar.

In 1893-94 Buxar wheat was cultivated on the Turka estate; the outturn was very poor, and the Manager reported that the cultivators were not disposed to cultivate any other crop than paddy.

24-Parganas.

No experiments in the cultivation of Buxar wheat have been made in this district.

Nadia.

Buxar wheat was tried in this district in three seasons. In 1887-88 it was sown too late, and in consequence the outturn was poor. In the following season it was experimented with in the Meherpur and Kushtia subdivisions, and in the Nadia Ward's Estate. In the last mentioned place the crop thrived well in the beginning, but eventually gave a poor outturn of low quality. Detailed information about the cultivation in the other places was not received. The sample of Buxar wheat from Meherpur was considered by the Wheat and Seeds Trade Association to be fair in quality, but rather deteriorated. In 1889-90 the wheat crop again failed, as in many other places, from the effects of excessive rain in November 1889. A sample from Meherpur was judged to be of "Buxar quality, but rather small in grain." It appeared that no special care was taken of the cultivation.

In 1893-94 Buxar wheat was grown in three places in the Nadiya district. On the Home Farm of Mr. B. Pal Chaudhry, it was grown with fairly successful results on 3¾ bighas of light sandy loam. Babu Prasanna Chundra Ray of Chandipur grew it on two plots of 2 and 3 bighas respectively. The produce of the first plot was ten maunds, and exceeded the outturn of country wheat which averages 2½ to 3 maunds per bigha; the produce of the second plot was comparatively poor. The experimenter believes that Buxar wheat is suited to the Nadia district. The experimental cultivation of another zamindar in the Meherpur subdivision failed through want of rain.

Jessore.

Buxar wheat was tried in this district in the Narail estate in 1886-87, and again in the Jhenida subdivision in 1890-91. At Narail the crop looked very promising in the beginning,

but was eventually much injured by mildew; the outturn was 5 maunds per bigha against 6 maunds yielded by country wheat sown side by side with the Buxar wheat. In Jhenida the Buxar wheat crop of 1890-91 was a poor one, yielding 3 maunds per bigha at its best. When in ear, it was considerably damaged by heavy rain.

In 1893-94 Buxar wheat was cultivated by Babu Nafar Chandra Pal Chaudhury at Moheshpur in the Bangaon subdivision on 2½ bighas of good *char* land. The crop grew well, but its growth was checked at the end, and the plants became yellowish. The ears were poor, and the outturn practically *nil.*

Khulna.

Buxar wheat has not been tried in this district.

Murshidabad.

In 1887-88 Buxar wheat was experimentally grown in the Kandi and Jangipur subdivisions, and at Nashipur, Berhampore, and its neighbourhood. The results were generally disappointing. Buxar wheat succeeded, however, very well at the Berhampore Jail, and in the cultivation of Babu Hari Mohan Mozumdar, who obtained an outturn of 10 maunds per bigha. The quality of some of the samples was fairly good, while others were composed of shrivelled and small grains. In 1888-89 it was tried in all the four subdivisions of the district. The results were successful, both in respect of outturn and quality, in Kandi and Jangipur; the quality of the Buxar wheat grown in the Sadar and Lalbagh subdivisions was, however, inferior, and the outturn in the former was also poor.

In 1889-90 it was tried in all the above places. In Lalbagh country wheat was found to give always a larger outturn than Buxar when no manure was applied; but at Dilfarbagh when the land was dressed with cow-dung, at 20 maunds per bigha, Buxar yielded at the rate of 13 maunds 32 seers per bigha, while the country variety yielded only 8 maunds 20 seers per bigha. In Jangipur and Kandi the wheat crop of 1889-90, both Buxar and country, was poor. The samples received from Murshidabad were too damaged for valuation.

The results of experimental cultivation of Buxar wheat in 1890-91 were very discouraging. In Jangipur the outturn as well as the quality of the grain were poor. Two lots of Buxar wheat grown in Kandi were of good quality, but the outturn of the crop was poor, owing to damage caused by high wind and heavy rain in February 1891. The results were also very poor in Lalbagh.

Buxar wheat was grown in 1891-92 by the Manager of A. N. Roy's estate at Berhampore, and by two native gentlemen at Kandi, but the results are very disappointing in respect of outturn, though the quality was good. The

Subdivisional Officer of Jangipur reported that he had observed Buxar wheat being grown on about 15 bighas of land by some raiyats in thana Suti.

The cultivation of Buxar wheat in mahal Hariharpara of the Cossimbazar estate in 1892-93 also failed owing, it is reported, to unsuitablity of soil and climate and to negligence in cultivation.

In 1893-94 Babu P. C. Lahiri made a careful experiment with Buxar wheat at Nashipur. In four out of five plots, in which it was sown, the outturn was highly satisfactory, in the fifth, the outturn was poor. The first four plots were well manured and irrigated, the fifth was not. The produce was quite equal, if not superior, to the parent seed.

Rajshahi.

In 1887-88 Buxar wheat was tried by Kumar (now Raja) Sashi Sekharesser Roy of Tahirpur, who thought that the soil of the locality was not suited for the cultivation of wheat. In 1888-89 it was grown in the Dighapatiya estate on *áman* paddy land, after the paddy had been harvested. The sowing consequently was very late. The result was a very poor crop, the grain having deteriorated and lost character. The results of the experiment in the next season in the Dighapatiya estate were satisfactory, both in respect of outturn and quality, as compared with local wheat. In 1890-91, however, the experimental crop is reported to have been severely injured by rain and hail when it was in ear; the outturn, as well as its quality, were consequently poor.

In 1891-92 the results of experimental cultivation of Buxar wheat in this estate were on the whole very successful, both in respect of outturn and quality. In the following year, the outturn was not satisfactory, owing, it is reported, to unfavourable character of the weather, but the quality was good.

Dinajpur.

Experiments in the cultivation of Buxar wheat have been made in this district since 1886-87 with invariably poor results in the Maldwar, Sunkerpur, Churaman, and Haripur estates.

In 1893-94 it was grown at Purnea in the Maldwar estate, the outturn was exceedingly poor, owing, it is said, to want of rain, but the cultivators are said to like the variety and wish to try it again.

Pabna.

The results of experiments in Buxar wheat were very discouraging in the seasons 1886-87, 1887-88, and 1888-89. But in 1889-90 Babu Banamali Roy of Banwarinagar obtained fairly good results. He contrasted Buxar with country wheat, and obtained from the former 5½ maunds

and from the latter 6 maunds per bigha. There was, however, a difference of 6 annas 6 pies per maund in value in favour of Buxar wheat, which more than compensated for the slightly smaller yield. In 1891-92 Buxar wheat was grown by Babu Gobind Nath Chaudhry of Pashedanga. The outturn was fairly satisfactory, and the quality very good.

Bogra.

Buxar wheat has been experimentally grown for several years in the Jaipur Government estate, with very encouraging results. In 1886-87 a plot of Buxar wheat, measuring 13 cottahs, manured with crude saltpetre at the rate of 25 seers per bigha, gave an outturn of 5 maunds 8 seers 11 chitaks of grain per bigha, against 1 maund 5 seers yielded by a similar plot of country wheat; and in 1887-88 Buxar wheat treated with saltpetre yielded 6 maunds 15 seers of grain per bigha against 5 maunds 2 seers given by the country variety. The results were equally satisfactory in the two following seasons. The quality of Buxar wheat grown in the Jaipur estate has been considered to be of Buxar character, but slightly deteriorated, the difference in price between it and the country wheat amounting to nearly eight annas per maund.

Rangpur.

The results of Buxar wheat cultivation in this district in 1887-88, 1888-89, and 1889-90 were generally satisfactory. In 1887-88 it was reported that although Buxar wheat was sown so late as the end of November, and in some cases in December, the outturn obtained in Nilphamari and at headquarters was larger than that of the local variety. Although not so good as the seed, the produce was superior in respect of quality to local wheat. The results obtained in the following season were not very definite; but the quality of Buxar wheat grown that year was, as in the previous year, considered to be superior to that of local wheat. In 1889-90 the result was very satisfactory where the cultivation had been properly attended to. In one place the outturn is reported to have been as high as 30-fold of the seed sown, and at the rate of 23 maunds per bigha. No valuation, however, could be obtained of the samples received, which were much damaged.

The results obtained in 1890-91, 1891-92, and 1892-93 were, on the other hand, unsatisfactory, both in respect of outturn and quality.

Jalpaiguri.

Buxar wheat has been tried in the Duars since 1888-89. The quality grown there was always inferior, except in 1890-91, when it was appraised at Rs. 3 per maund. There can be no doubt that even though Buxar wheat showed some

degeneration in the Duars, it was still much superior to the local variety. When properly attended to, Buxar wheat has given a fairly good outturn in Jalpaiguri.

In 1893-94 the Subdivisional Officer of Alipur distributed 6 maunds of Buxar seed among tenants in the Alipur, Bhulka, and Falakata tahsils; in Bhalka the crop was a total failure; in Alipore and Falakata it gave a poor outturn. The Subdivisional Officer believes the climate to be too damp for the successful cultivation of Buxar wheat.

Darjeeling.

Buxar wheat was tried in 1887-88 in the khas mahals in the hills, but the seed having arrived late, the crop did not do well.

The Subdivisional Officer of Siliguri distributed one maund of Buxar wheat seed among five parties, the result was a failure in every case; in one place only the outturn was five-fold. He believes the *terai* to be unsuited for wheat cultivation. The sample of Buxar wheat from Siliguri was, however, adjudged by the Agri-Horticultural Society to be equal to Buxar extra No. 1, and appraised at the highest value than any other sample received from the experimental crop of 1893-94.

Dacca.

Buxar wheat was experimentally grown in the Manikganj subdivision in 1887-88, but failed absolutely on account of injury caused by mildew. It was tried in the following season at Pathurghata, and the sample from this place was considered to be very good in quality. No information as to outturn is available.

Faridpur.

Buxar wheat was tried in 1887-88, but on account of lateness in sowing and probably of unsuitability of soil, the result was very unsatisfactory. It was tried again in 1890-91 by Babu Bepin Behari Roy of Mathura, but no information as to outturn and quality of the produce is available. In 1893-94 Buxar wheat was sown in several places in the Goalundo and *sadar* subdivisions, but everywhere failed. It is believed the soil is not suited to the crop.

Mymensingh.

Buxar wheat was experimented with by Kumar Gopendra Chandra Chowdhury at Gorakpur in 1889-90. The sample received from him was considered to be "good average, Buxar quality." The outturn is not known.

In 1893-94 Buxar wheat was experimented with on a piece of high sandy land in the Kishanganj subdivision, but practically failed. The crop had grown well, but was injured by high winds. The Subdivisional Officer considers

the soil to be unsuitable for Buxar wheat, but considering the sandy character of the soil, it would probably be unsuited to all kinds of wheat.

Backergunge.

No experiments in the cultivation of Buxar wheat have been made in this district.

Chittagong.

Buxar wheat has been tried in the Dohazari estate in Chittagong since 1887-88. In the first year the plants died out before forming ears, but the results obtained in the following three seasons were very encouraging. The quality grown there has in every year been considered to be good and equal to average Buxar. The outturn, so far as is known, was also fairly satisfactory. The cultivation of Buxar wheat appears to have become popular in the Dohazari estate. Wheat grown from Buxar seed fetched in the local market Rs. 3-4 per maund, which was 4 annas more than the price of local wheat. In 1891-92 the Buxar wheat crop on this estate gave poor outturn, owing to damage by drought, but the quality was good. In 1892-93 the quality of the produce was very good, and the outturn fair. In 1893-94 Buxar wheat was grown from seed saved from previous year, but from want of rain the crop gave a very poor outturn in common with country wheat. The quality of grain also deteriorated, and looked little reddish.

Tippera.

Experiments were made at Comilla Jail in 1886-87 and 1887-88 by the Dewan to His Highness the Maharaja of Hill Tippera in several parts of his estate and by the Manager of Basarat Ali Chowdhury's estate in 1887-88, and by the Sub-Manager of the Serail estate in 1890-91; but in every case with unsuccessful results.

Noakhali and Chittagong Hill Tracts.

No experiments in the cultivation of Buxar wheat have been made in these districts.

Patna.

In 1886-87 Buxar wheat was tried in all the subdivisions of this district, but succeeded only in Barh, where it gave a better outturn than local varieties. No samples appear to have been received for valuation in that year.

In 1887-88 it was tried in three villages belonging to a Court of Ward's Estate (Rajpur, Birthoo, and Chistipur); at Rajpur, a good outturn was obtained, and a fair one at he other two places. The samples of wheat received from all these places were considered to be very good, and equal to Buxar No. 1 club.

The results obtained in 1888-89 at Dosut and Chistipur, two other villages belonging to the same estate, were very discouraging, both in respect of outturn and quality, the crop having failed through continued drought.

In 1890-91 it was grown in three places (Birthoo, Marwa, and Chistipur), in two of which the outturn is reported to have been 13 seers more per bigha than that of the country variety, and in the third it failed altogether owing to insect pests, and the rain and hailstorms of March last. Buxar wheat grown in the first two places was sold at 18 seers per rupee against 20 seers of local wheat.

In 1891-92 Buxar wheat was grown at Birthoo. The outturn was generally poor, owing to want of rain at sowing time, but the quality was fairly good. In 1892-93 it was cultivated in three other villages of the estate. The outturn was poor; the grains, though of fairly good quality, were reported to change in colour by continuous cultivation.

In 1893-94 Buxar wheat was grown in four villages (Muzaffarpur Birthoo, Tulsipur Dosut, Jangipur Siriwan, and Bishenpur) belonging to minor Bhagawat Narain Sing of Patna. At Muzaffarpur Birtoo the cultivation was successful, both in respect of outturn and quality, which were better than those of country wheat; the outturn was, however, less than that of country wheat in the other three villages. The General Manager of Ward's Estates, Patna, in reporting on these experiments, noticed the tendency of Buxar wheat to acquire a reddish colour by continuous cultivation.

Gaya.

In 1886-87 Buxar wheat was tried in Aurungabad, where it totally failed, owing to rust and unfavourable weather, and in the Tikari estate with fairly good results. In the latter place it yielded an outturn of 5 maunds 10 seers per bigha against 4 maunds 13 seers yielded by country wheat.

In 1887-88 it was again tried in Aurungabad with unsuccessful results, although the samples of Buxar wheat received from there, and also from Deo, were considered to be equal to Buxar No. 1, but with rather smaller again.

Shahabad.

The Buxar and Sasaram subdivisions of this district are the home of Buxar wheat. Its cultivation was tried in 1887-88 at Arrah; samples of Buxar wheat grown there were considered to be as good as Buxar No. 1 club.

Darbhanga.

In 1887-88 Buxar wheat was experimented with in the Sadar, Tajpur and Madhubani subdivisions. It entirely failed in Tajpur. In the Sadar it was grown by Mr. Wood, who got a fairly good outturn, but believed Buxar wheat to be unsuited to his neighbourhood. Mr. Renny, Sub-Manager

of the Alipore circle of the Darbhanga Raj, found the yield to be less than the average of the country variety. Late sowing in every case and unfavourable season caused partial failure in 1888-89.

In 1892-93 Buxar wheat was grown by Raja Rameswar Singh Bahadur of Rajnagar, but the outturn was poor owing to unfavourable weather. The Raja also tried it in the following year on a large area of land manured with indigo refuse, but the outturn was poor owing, it is said, to showers rain falling immediately after the sowings.

Muzaffarpur.

Buxar wheat was tried in 1886-87 by Mr. Jones of Dharampur Indigo Factory, but no report was received from him. In 1890-91 it was tried by the Manager of the Kanti Concern and by Babu Nunda Lal, a zamindar of Muzaffarpur. The Manager of the Kanti Concern, who made a careful experiment to test the relative merits of Buxar and country wheat in 20 bighas of land, got an average outturn per bigha of 8·8 maunds from the former against 10·6 from the latter. The Buxar wheat was better in quality than the local, and valued 2 annas to 2½ annas more per maund, which was not, however, enough to compensate for the lower outturn. Babu Nando Lal got a poor outturn, which he attributed to heavy rain in February. In 1892-93 Buxar wheat was grown at Babgarh in Sitamarhi, at Muzaffarpur, and at Pakri in Hajipur, but its cultivation did not prove successful anywhere. It was also tried by Babu Umara Bahadur at Pakri in the following year (1893-94) with disappointing resuls. The produce averaged four maunds per bigha which was ess than that of country wheat, the quality was also inferior.

Saran.

Buxar wheat was tried in two places in 1886-87, but failed through want of care. Two samples of Buxar wheat received from Saran were pronounced to be good Buxar No. 1.

In 1889-90 it was grown at Hatwa by the Manager of the Hatwa Raj and by Mr. Reid of Moneara Factory. The results obtained were good. Mr. Reid obtained 68 maunds, 14 seers of wheat from 5 maunds of seed sown in 4½ English acres. At Hatwa the outturn was not, however, satisfactory, in comparison with that of country wheat. The samples of Buxar wheat from Hatwa and Moneara were quite up to fair Buxar quality. In the next season (1890-91) Buxar wheat was tried in numerous places. The most important experiment was one made by Mr. Reid, who obtained an outturn of 100 maunds from 8 acres, or 12½ maunds per acre. This outturn was considered poor in comparison with that of the local variety of wheat. The poor outturn was attributed partly to the heavy downpour of rain in March 1891. The

results obtained in the other places were discouraging. In 1891-92 Buxar wheat was grown at two places in the Hatwa Raj. The quality was good, and the results were a little more encouraging than in previous years. Buxar wheat was grown at four villages of the Hatwa Raj in 1892-93. In three cases out of the four, the outturn was superior in quality and larger in quantity than that of country wheat, while in the fourth, though superior in quality, it was inferior to country wheat in respect of outturn. Buxar wheat was again tried in 1893-94 by three tenants of the Hatwa Raj. The outturn was poor, having averged 4 to 6 maunds per local bigha which was less than that of country wheat; the quality was also no better. The unsatisfactory result is attributed to the unfavorable character of the last rainy season.

Champaran.

Buxar wheat was tried in two places in 1887-88, but failed owing to late sowing. It was also tried by Mr. C. J. Carleton of Byrea Factory in 1892-93; the quality of the produce was not satisfactory. No definite information is available as to outturn.

In 1893-94, Buxar wheat was tried in various parts of the Bettiah sub-division. In practically all cases it came up well, and gave promise of a good crop. The ears, however, shrivelled up, and the outturn eventually obtained was extremely megre. The Buxar wheat crop suffered in places from rust and want of moisture, but country wheat gave an average good crop.

Bhagalpur.

In 1885-86 wheat grown from Buxar seed in Bhagalpur by Babus Surjya Narain Singh and Sadhorn Lal was valued at 6 annas more per maund than local wheat. In the following year several zamindars grew Buxar wheat, of which 4 samples were appraised by the Wheat and Seeds Trade Association, one being as good as No. 1 club, another equal to No. 2 club.

In 1887-88 Buxar wheat was tried by three gentlemen, viz., by Mr. Curtis at Colgong, by Babu Hari Mohun Thakur, and Babu Beni Lal Singh in the Sadar subdivision. Mr. Curtis and Babu Hari Mohan Thakur obtained a larger yield from Buxar wheat than from the country variety, while the result obtained by Babu Beni Lal Singh was the opposite.

In 1888-89 Mr. Scott of the Narainpur Factory made some experiments, but the wheat produced was found by the Wheat and Seed Trades Association to be valueless for export.

In 1892-93 Babu Brojo Mohan Thakur grew Buxar wheat on some char land at Bhagalpur; and although the quality was good, the outturn was not satisfactory.

In 1893-94, Buxar wheat was tried by Babu Tilukdhari Lal in south Bhagalpur, by Mr. F. Christian and his tenants

in the Pathoorghat Factory, and by the Manager of the Harowat estate at Gunputgunge. At Pathoorghat the outturn averaged 6 maunds per bigha, which Mr. Christian considered to be poor as compared will that of country wheat; in the other two places the outturn was also poor.

Monghyr.

Buxar wheat was tried by numerous raiyats in 1886-87, but the seed having been received late, the outturn obtained was very poor. Two samples were valued, one equal to No. 1 club, and the other equal to No. 2 club. In 1889-90 it was tried at the Bangaon Factory: the sample was valued as "fair Buxar." In 1890-91 numerous experiments were made in different parts of the district; but both the outturn and the quality of the produce in most cases were very poor.

Purnea.

Buxar wheat was tried in three places in 1887-88 in the district. In one place the experimenter (Nawab Ata Hossein) is reported to have obtained 2½ maunds per bigha, which he considered to be a fair yield for the season. The sample received from him was considered as "Buxar style, but inferior in colour and size of grain." No reports were received from the other two places.

Experiments made by Nawab Ata Hossein of Khagra in 1888-89, 1890-91, and 1891-92, failed both in respect of yield and quality. In the latter year, the Subdivisional Officer of Araria reported that Buxar wheat was tried on a large area of land, but the outturn was less than that of country wheat. In 1893-94 also, the cultivation of Buxar wheat in the Araria sub-division failed.

Malda.

Experiments in Buxar wheat were made in khas mahals, and in the Chanchal estate in 1887-88. In the former the yield was 2 maunds per bigha against an outturn of 3 maunds of country wheat. The results appear to have been favourable in Chanchal, but particulars as to outturn are not available.

Buxar wheat was tried again in the Chanchal estate in the following year. The grain was of good quality, but no information as to outturn is available.

Sonthal Parganas.

Buxar wheat was tried in 1886-87 by Raja Satish Chandra Pande of Pakour and by several raiyats in pargana Ambar. Late sowing and untimely heavy rain in January caused much loss, but on the whole the result was satisfactory. In one field measuring 1½ bighas, the outturn was at the rate of 8 maunds per bigha, and in another measuring 2 bighas at the rate of 6 maunds per bigha.

In 1891-92 Buxar wheat was grown by the Manager of the Kaddun Soor estate. The crop was sown late, and hence the outturn was not quite satisfactory, but the quality of the wheat was very good.

Cuttack.

In 1888-89 Buxar wheat was tried in the Banki Government estate, but was sown very late in the season, and subsequently was damaged by high winds. The produce had lost Buxar character. It was tried in 1889-90 in Madhupur, but gave a very poor outturn. In the following season it was tried again in Madhupur, and also in Kujong; the quality of the produce in both these places appears from the report of the Wheat and Seed Trades Association to have been good; but no particulars as to outturn are available. An experiment made at Kujong in 1891-92 proved unsuccessful.

Puri.

Buxar wheat was tried in 1887-88 in the Khurda subdivision, but failed owing purely to its having been sown late. It was tried again in 1890-91 in the same subdivision, but no report on the results has been received.

Balasore.

Buxar wheat was tried in the district at Khandwa in Bhadrak in 1889-90, and at Noanund in 1890-91. Particulars of the 1889-90 crop are not available; but in the following year, the crop turned out a complete failure, although the seed was sown on rich alluvial land and was irrigated.

In 1888-89 an experiment made in the Malighati estate proved very successful. The cultivation gave an outturn of 6½ maunds of wheat, and a net profit of Rs. 7 per bigha.

In 1891-92 Buxar wheat was experimented with by Raja Baikantha Nath De at Balasore, with encouraging results, both in respect of outturn and quality. Another experiment by Babu Govind Ballav Rai Mahasai at Kanpur failed owing, it is said, to late sowing and cloudy weather in January.

Angul.

Buxar wheat was tried in 16 villages in 1893-94, but it failed everywhere, owing, it is said, to want of irrigation.

Hazaribagh.

Experiments were made in 1886-87 in the cultivation of Buxar wheat in the Serampore and Dhanwar estates. The seed having arrived late, was not sown until the middle of November. Owing to this, and probably to the unsuitability of the soil, the results obtained in Dhanwar were disappointing. But in Serampore, where great care appears to have

been taken in preparing and manuring two bighas of land, an outturn of 4 maunds, 15 seers per bigha was obtained. The total cost of the cultivation of the 2 bighas amounted to Rs. 17-9-6, and the value of the yield which was equal to best No. 1 club was about Rs. 26.

In the following year (1887-88) it was carefully tried at Satgawan, where it gave a fairly good yield, as compared with the local variety, and the quality, as judged from 4 samples, was pronounced to be as good as No. 1 club. In the same year it was tried at Gawan with poor results, both in respect of outturn and quality.

Buxar wheat was again cultivated in 1888-89 in the Serampore estate, and although no information is available as to outturn, the produce was considered by the Wheat and Seeds Trade Association to be of very fine Buxar quality. In 1890-91 the zamindar of Gawan tried it again, but is reported to have neglected the cultivation. Owing to his neglect as well as damage caused by hailstorms, the crop gave a very poor outturn, and the quality was also inferior.

In 1893-94, Buxar wheat was tried by Tikait Todil Narain Singh of Gadi Gawan and the Manager of the Encumbered Estates, but in either case the outturn was poor.

Lohardaga.

In 1887-88 Buxar wheat was sown in the Uparpat, Burway and Badla estates, but late in the season. The outturn in every case was poor, although the quality of wheat at the first two places was equal to that of No. 1 club. In 1888-89 it was again tried at Uparpat. The sowing this year was also late, and the season was very unfavourable on account of long-continued drought. Yet the yield of Buxar wheat at Uparpat was fairly satisfactory, although the quality was bad. In 1889-90 it was tried for the third time at Uparpat; the quality of the produce was good, but nothing is known as to the outturn. The same was the case in two other places where Buxar wheat was tried in 1889-90.

Palamau.

Babu Sasi Sekhor Banerjee of Daltonganj experimented with Buxar wheat for three years (1890-91 to 1892-93), and was of opinion that Buxar wheat was not suited to the soil and climate of his part of the country, and that it gradually deteriorates by being grown there.

Singhbhum.

An experiment was made in this district at Kera in the year 1890-91. The yield was poor, and the quality exceptionally bad. Another experiment made in 1892-93 by Captain David Manki at Katbari failed through unfavourable weather.

B. C. Basu.
Assistant Director.

The 1st August 1894.

I.—Localities in which the cultivation of Buxar wheat succeeded or gave encouraging results.

DISTRICT.	Locality.	By whom grown or reported	Year.	REMARKS.
1	2	3	4	5
Burdwan	Ka na sub-division	Sub-divisional Officer...	1887-88	In the Ukhra estate in Raniganj, Buxar wheat was reported to have been in cultivation to the extent of 200 bighas in 1893-94.
	Katwa ditto ...	Ditto ...	1887-88	
	Do. ditto ...	Ditto ...	1888-89	
	Ukhra (Raniganj).	Babu Pulin Behari Sing.	1893-94	
Hooghly	Belculi Government village.	Collector of Hooghly ...	1893-94	
Midnapore ...	Belluria estate ...	Manager	1888-89	
	Malighati estate...	Ditto	1888-89	
	Ditto ...	Ditto	1890-91	
	Basudebpur ...	Ditto	1891-92	
Nadia	Natuda ...	Mr. B. Pal Choudhury.	1893-94	
	Chandipur ...	Babu P. C. Roy ...	1893-94	
Murshidabad ...	Berhampur Jail ...	Jailor	1887-88	
	Berhampur ...	Hari Mohan Mazumdar.	1887-88	
	Kandi sub-division	Sub-divisional Officer...	1888-89	
	Jangipur sub-division.	Ditto ...	1888-89	
	Dilfarbagh (Lalbagh sub-division.)	Ditto ...	1889-90	When manured, Buxar was found to give much larger outturn than local wheat, but not otherwise.
	Jangipur ...	Sub-divisional Officer ...	1891-92	The Sub-divisional Officer of Jangipur reported that he saw Buxar wheat being grown by raiyats on about 15 bighas of land.
	Nashipur	Babu P. C. Lahiri ...	1893-94	
Rajshahi	Dighapatia estate	Manager	1889-90 and 1891-92	
Pabna	Banwarinagar ...	Babu Banomali Roy ..	1889-90	
	Parshadanga ...	Babu Govindanath Roy Chaudhry.	1891-92	
Bogra	Jaipur Government estate.	Manager	1886-87 1887-88 1888-89 1889-90	
Rangpur	.....	Collector	1887-88 1888-89 1889-90	Compare with unsatisfactory results in following three years.
Dacca	Patharghat ...	.....	1888-89	Quality good; outturn not known.
Mymensingh ...	Gorakpur ...	Kumar Gopendra Chandra Chaudhury.	1889-90	Ditto.
Chittagong ...	Dohazari estate ...	Manager	1888-89 1889-90 1890-91 1892-93	The cultivation of Buxar wheat was reported to have become popular in the estate.
Patna	Barh sub-division	.....	1886-87	*Vide* Statement III, where a very unfavourable opinion is expressed.
	Rajpur, Birtoo and Chistipur.	Manager of Wards' estates.	1887-88	
	Birtoo and Marwa	Ditto ditto ...	1890-91	
	Birtoo	.....	1893-94	
Gaya	Tikari Estate ...	.....	1886-87	
	Deo " ...	.....	1887-88	Outturn is not known; quality good.
Shahabad ...	Arrah	.....	1887-88	
Darbhanga ...	Sadar sub-division.	Mr. Wood	1887-88	Good outturn, but Mr. Wood thought Buxar unsuited to the locality.
Saran	Moneara factory...	Mr. Reid.	1889-90	*Vide* Statement III for Mr. Reid's report for 1890-91.
	Hatwa	Manager of Hatwa Raj.	1889-90	
	Do.	Ditto ditto ...	1891-92	
	Do.	Ditto ditto ...	1892-93	
Bhagalpur ...	.....	Babus Surjya Narain Singh and Sadhan Lal.	1885-86	
	.....	Several zamindars ...	1886-87	
	Colgong	Mr. Cortis	1887-88	
	Sadar sub-division.	Babu Hari Mohan Thakur.	1887-88	

DISTRICT.	Locality.	By whom grown or reported.	Year.	REMARKS.
1	2	3	4	5
Monghyr	Bangaon factory	.....	1889-90	Outturn not known: quality good
Malda	Chanchal estate ...	Manager	1887-88 and 1888-89	
Sonthal Parganas ..	Pargana Ambur...	Raja Satis Chandra Pande and tenants.	1886-87	
Cuttack	Kaddinsoor estate	Manager	1891-92	
	Madhupur and Kujong estates.	.....	1890-91	Ditto ditto.
Balasore	Malighati estate ..	...	1888-89	
	Balasore	Raja Balkunta Nath Dey.	1891-92	
Hazaribagh ...	Serampur estates	Zamindar	1886-87 and 1888-89	
	Satgaon	.....	1887-88	
Lohardaga ...	Uperpat estate ...	Zamindar	1888-89 and 1889-90	

B. C. BASU,

The 1st August 1894. *Assistant Director.*

II.—Localities in which the cultivation of Buxar wheat failed or gave unsatisfactory results owing to unfavourable weather, neglect in cultivation, &c.

DISTRICT.	Locality.	By whom grown or reported.	Year.	Causes of failure.
1	2	3	4	5
Burdwan	Raniganj sub-division.	Sub-divisional Officer...	1887-88	Want of rain.
	Ditto	Ditto	1889-90	Heavy rain in November.
	Katwa sub-division.	Ditto	1889-90	Ditto.
	Raniganj sub-division.	Ditto	1890-91	Heavy rain in February and March.
	Katwa sub-division.	Ditto	1890-91	Ditto.
	Ukhra estate ...	Zamindar	1891-92	Want of irrigation and inexperience.
Birbhum	(Not specified) ...	.....	1887-88	Late sowing and want of irrigation.
Bankura	Searsole	Kumar Dakhineswar Malia.	1890-91	Injury by locusts.
Hooghly	Gopaltola	... ..	1890-91	Heavy rain and floods.
Midnapore ...	Several Wards' estates.	Managers...	1889-90	Heavy rain in November.
	Sabra	Kali Prasanna Gopendra Mahapatra.	1892-93	Late sowing.
	Turka	Manager	1893-94	Ditto.
Nadia	(Not specified) ...	.....	1887-88	Ditto.
	Ditto ...	.....	1889-90	Excessive rain in November.
	Meherpur	Sub-divisional Officer...	1893-94	
Jessore	Narail	Zamindars of Narail estate.	1886-87	Much injured by mildew.
	Jhenida	.....	1890-91	Heavy rain.
Murshidabad ...	Kandi sub-division	Sub-divisional Officer...	1890-91	High wind and heavy rain in February.
Rajshahi	Dighapatia estate	Manager	1888-89	Unsuitable land and late sowing.
	Ditto ...	Ditto	1890-91	Severe injury by rain and hail.
	Ditto ...	Ditto	1892-93	Unfavourable weather.
Dinajpur	Maldwar estate ...	Ditto	1893-94	Want of rain. Cultivators like the variety.
Darjeeling ...	Khas Mahals ...	.....	1887-88	Late sowing.
Dacca	Manikganj sub-division.	.....	1887-88	Mildew.
Chittagong ...	Dohazari estate ...	Manager	1891-92	Drought.
	Ditto ...	Ditto	1893-94	Ditto.
Patna	Dosut and Chistipur.	Manager of Ward's Estate.	1888-89	Drought.
	Chistipur ...	Ditto ...	1889-90	Insect pest and rain and hailstorm in March.
	Birtoo	Ditto ...	1891-92	Want of rain at sowing time.
Gaya	Aurangabad sub-division.	.....	1886-87	Rust and unfavourable weather.
Darbhanga ...	... ..	.....	1888-89	
	Rajnagar	Raja Rameswar Singh	1892-93	Unfavourable weather.
	Ditto	Ditto ...	1893-94	Heavy rain after sowing.
Muzaffarpur ...	.....	Babu Nanda Lal ...	1890-91	Heavy rain in February.
Saran	.....	.....	1886-87	Want of care.
	Hatwa Raj ...	Manager	1893-94	
Champaran ...	.....	.....	1887-88	Late sowing.
Bhagalpur ...	Harawat Estate ...	Manager	1893-94	Unfavourable weather and rust.
Monghyr	.....	Numerous raiyats ...	1886-87	Late sowing.
Cuttack	Banki Estate ...	.....	1888-89	Late sowing and high winds.
Puri	Khurda sub-division	.....	1887-88	Late sowing.
Balasore	Kanpur	Babu Govinda Ballav Roy Mahasaya.	1891-92	Late sowing and cloudy weather in January.
Angul	16 villages... ...	Deputy Commissioner	1893-94	Want of irrigation is the cause of failure.
Hazaribagh ...	Gawan Estate ...	Zamindar	1890-91	Neglect in cultivation and hailstorm.
Loha daga ...	Uperpat, Burway and Badla Estates	.....	1887-88	Late sowing.
Singbhum ..	Kathari	Captain David Manki...	1892-93	

The 1st August 1894.

B. C. BASU,
Assistant Director.

III—Localities in which the cultivation of Buxar wheat faled or gave unsatisfactory results as compared with local varieties owing, if is believed, to the soil and climate being unfavourable.

DISTRICT.	Locality.	By whom grown or reported.	Year.	REMARKS.
1	2	3	4	5
Midnapore ...	Mohespur estate...	Manager	1891-92	
Murshidabad ...	Cassimbazar ...	,, of A. N. Roy's estate.	1892-93	
Rajshahi	Tahirpur ...	Raja Shashishikareswar Roy.	1887-88	
Jalpaiguri ...	Duars	.....	1888-89 1889-90 1890-91	In spite of Buxar wheat degenerating in the Duars it is an improvement on local variety, which is, however, grown to a very small extent.
	Alipur, Falakata and Bholka tahsils.	Sub-divisional Officer of Alipur.	1893-94	
Darjeeling ...	Sillguri	Sub-divisional Officer...	1893-94	
Faridpur	.....	.....	1887-88	
	Goalundo and Sadar sub-division.	Collector	1893-94	
Tippera	.....	Dewan to His Highness Maharaja of Tippera.	1886-87 1887-88	
		Manager of Basarat Ali Chowdhury's estate and Sub-Manager of Sarail.	1887-88 1890-91	
Patna	Tulsipur, Dosat, Bishunpur, Jaintipur.	General Manager of Ward's Estates.	1892-93	The raiyats of Birtoo, where Buxar wheat has been experimented with for a number of years, express unwillingness to continue the cultivation on the ground of its outturn being less than that of local wheat. *Vide* States ment I.
Darbhanga ...	Alipur circle of Darbhanga Raj.	Mr. Renny	1887-88	
Muzaffarpur ...	Kanti concern Babgarh (Sitamarhi).	Manager	1890-91	
	Muzaffarpur ...	Surjdeo Narain Singh Babus Parameswar Narain Mahata and Bhagawan Das.	1892-93	
	Pakri (Hajipur)...	Babu Umaroo Bahadur		
	Ditto ...	Ditto ...	1893-94	
Saran	Moneara factory...	Mr. Reid	1890-91	Outturn was 12¼ maunds per acre, less than that of local wheat. Crop injured by heavy downpour in March. *Vide* Statement I.
Champaran ...	Bettiah sub-division.	Sub-divisional Officer...	1893-94	Gave less outturn than local, butinjured by rust and unfavourable weather.
Bhagalpur ...	South Bhagalpur	Babu Tilak Dhari Lall	1892-93 and 1893-94	
	Patharghat Factory.	Mr. Christian and tenants.	1893-94	
Purnea	Arraria ...	Sub-divisional Officer...	1891-92 1893-94	
Malda	Khas mahals ...	.....	1887-88	
Balasore	Noanund	.....	1890-91	
Hazaribagh ...	Gawan estate ...	Zamindar	1893-94	
		Deputy Commissioner	1893-94	
Palamau	Daltonganj ...	Babu Sashi Sekhar Banerjee.	1890-91 1891-92 1892-93	

B. C. BASU,

The 1st August 1894. *Assistant Director.*

IV.—Localities in which the cultivation of Buxar wheat failed or gave unsatisfactory results, the causes of failure, &c., being not known.

DISTRICT.	Locality.	By whom grown or reported.	Year.	REMARKS.
1	2	3	4	5
Midnapore ...	Nayagram ... Basudebpur ... Mohespur ...	.....	1890-91	
Nadia	Nadia Ward's Estate.	.....	1888-89	
Jessore	Bongong ...	Babu N. C. Pal Chowdry.	1893-94	
Murshidabad ...	Kandi sub-division Jangipur ditto Nashipur ... Bekhampur ...	....	1887-88 1889-90	
	Sadar sub-division Lalbagh ditto	.....	1888-89	
	Jangipur ...	.....	1890-91	
	Lalbagh ...	.....	1890-91	
	Cassimbazar ...	Manager of A. N. Roy's estate.	1891-92	
Dinajpur	Maldwar ... Shankarpur ... Churaman and Haripur estates	Managers	1886-87	*Vide* Maldwar in statement II.
Pabna	.....	.....	1886-87 1887-88 1888-89	
Rangpur	.....	Collector	1890-91 1891-92 1892-93	Compare satisfactory results obtained in preceding three years.
Patna	Sadar sub-division	.....	1886-87	
	Dinapur sub-division.	.....	1886-87	
	Bihar sub-division	.....	1886-87	
Gaya	Aurangabad ...	.....	1887-88	
Darbhanga ...	Tajpur sub-division.	.....	1887-88	
Saran	Several places not specified.	.....	1890-91	
Champaran ...	Byrea Factory ...	Mr. Carleton	1892-93	
Bhagalpur ...	Sadar sub-division	Beni Lal Singh ...	1887-88	
	Narainpur Factory	Mr. Scott	1888-89	
	Bhagalpur ...	Babu Braja Mohan Thakur.	1892-93	
Monghyr	.....	Numerous parties ...	1890-91	
Purnea	Khagra	Nawab Ata Hossein ...	1887-88 1888-89 1890-91 1891-92	
Cuttack	Madhupur estate	Manager	1889-90	
	Kujong estate ...	Ditto	1891-92	
Balasore	Kanpur	Babu Govinda Ballav Roy Mahasaya.	1893-94	
Hazaribagh ...	Dhanawar estate	.....	1886-87	
	Gawan estate ...	Zamindar	1887-88	
Singhbhum ...	Kera	.....	1890-91	

B. C. BASU,
Assistant Director.

The 1st August 1894.

W. S. and others.—Reg. No. 2905C—250—31-8-94.